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BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER WANG, JIN CHENG	
			ART UNIT	PAPER NUMBER
			2672	
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/775,164	LEE ET AL.	
	Examiner	Art Unit	
	Jin-Cheng Wang	2672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Response to Amendment

Applicant's submission filed on 12/20/2005 has been entered. Claims 40-45 have been newly added. Claims 1-2, 9, 13, 15, 23 have been amended. Claims 1-45 are pending in the present application.

Response to Arguments

Applicant's arguments with respect to claims 1, 13 and 23 have been considered but are not found persuasive in view of the new ground(s) of rejection based on Yanker U.S. Patent No. 5,187,776 (hereinafter Yanker) in view of Allard et al. U.S. Patent No. 5,615,384 (hereinafter Allard).

As set forth below in the present Office Action, Yanker does not explicitly teach “a portable device” within the claim limitation of “displaying an image in a display area of a portable device” and/or “zooming image without continuously shifting picture in said display area of portable device.”

Yanker discloses the zooming function being implemented on an audio/visual application processor on an IBM PS/2 computer system, which can be either a desktop computer or a laptop computer and therefore, Yanker's zoom function can be implemented in a portable device such as a laptop computer system. Moreover, Yanker discloses magnifying an unmagnified image in the first window and displaying the magnified portion of the image within the first window in accordance with the indicator position at the center of the first window and the magnified pel size (See column 1, lines 55-65). Yanker discloses storing the magnified portion of the image

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within display memory 1 (See column 55-60) and displaying the magnified image as retrieved from the memory. Although Yanker discloses panning and scrolling of the magnified image in certain embodiment, Yanker does not even mention, “continuously shifting”. Yanker displays the magnified image without continuously shifting picture in the display area. Thus, Yanker is seen to teach magnifying an un-magnified image without continuously shifting picture”.

Allard discloses a mobile, hand-held personal communicator and magnifying a graphics image displayed on the mobile device (See Allard the Abstract). Allard explicitly teach the claim limitation of “displaying an image in a display area of a portable device” and “zooming image without continuously shifting picture in said display area of portable device” (Allard Figs. 1 and 6; column 5-7 wherein panning is a different function from zooming and zooming of the graphics image is accomplished without continuously panning or shifting picture as evidenced in column 7, lines 4-16). Allard also discloses other claim limitations set forth in the claim 1 or 23 (Allard Figs. 1 and 6; column 5-6).

It would have been obvious to one of the ordinary skill in the art at the time of the invention was made to have combined Yanker’s zoom function with Allard’s zoom function, so that the zoom function of Yanker is applied to a mobile communicator. This is because both Yanker and Allard disclose the zoom function for the graphics image displayed on a display device (See column 5-6 of Allard and column 5-6 of Yanker). One of the ordinary skill in the art would have been motivated to apply the zoom function to a variety of devices including the mobile communicator (column 5-6 of Allard).

Specification

The disclosure is objected to because of the following informalities: On line 11 of the claim 1, “portable device..” should be “portable device.”. Appropriate correction is required.

Claim Objections

Claim 1 is objected to because of the following informalities: On line 11 of the claim 1, “portable device..” should be “portable device.”. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-22 and 40-43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 or 13 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: the claim limitation “image” set forth in the claim 1 or 13 in the claim limitation of “zooming image...” can not be determined from the claim language as structurally related to “a zoomed image” or “an image” as recited earlier in the claim 1 or 13 because “image” could be any image such as “a zoomed image” or the original zoomed image or a different image from any of the images recited earlier in the claim 1 or 13. Moreover, meaning of the claim limitation of “portable device” cannot be determined in the “zooming” step because

“portable device” may refer to the portable device used in the “displaying” step recited earlier in the claim or a different portable device from the portable device used in the displaying step.

The claims 2-12, and 40-41 depend upon the claim 1 and are rejected due to their dependency on the claim 1. The claims 14-22 and 42-43 depend upon the claim 13 and are rejected due to their dependency on the claim 13.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-39, 41, 43 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yanker U.S. Patent No. 5,187,776 (hereinafter Yanker) in view of Allard et al. U.S. Patent No. 5,615,384 (hereinafter Allard).

Re Claims 1 and 23:

Yanker discloses a method of zooming digital images by a single coordinate, comprising:

Displaying an image in a display area (*See Figs. 2 and 3 wherein an image 18 is displayed on the screen 10*), wherein said image being displayed according to an image information (*e.g., the image 18 is displayed according to the zoom level, the screen coordinate position of the cursor 16 and the size of the zoom window; see column 6, lines 35-40*);

Acquiring a position base of said image information (*e.g., the screen coordinate position of the cursor 16 and the size and coordinates of the zoom window; see column 6, lines 35-40*), wherein said position base being acquired according to said image information relative to a coordinate of said display area (*e.g., the screen coordinate position of the cursor 16 located at the center of the currently displayed image is thus relative to the center coordinate, the size and locations of the display screen 10; see column 6, lines 35-40; and moreover, the cursor 16 moves left, right, up or down; see column 5, lines 1-8*);

Acquiring a zooming ratio (*e.g., a zoom level is determined wherein the zoom level is a zoom ratio; see column 6, lines 29-35*); and

Using said image information to renew a zoomed image (*zoom image 18 is displayed on the screen 10 wherein the image 18 has been zoomed and thereby renewed; Figs. 2 and 3*) in said display area according to said zooming ratio and said position base (*e.g., column 5-6; see also column 4 wherein the operator repositions the cursor 16 within the magnified image window and the zoomed image is renewed according to the zoom level and the cursor position*).

Yanker does not explicitly teach “a portable device” within the claim limitation of “displaying an image in a display area of a portable device” and/or “zooming image without continuously shifting picture in said display area of portable device.”

Yanker discloses the zooming function being implemented on an audio/visual application processor on an IBM PS/2 computer system, which can be either a desktop computer or a laptop computer and therefore, Yanker’s zoom function can be implemented in a portable device such as a laptop computer system. Moreover, Yanker discloses magnifying an unmagnified image in the first window and displaying the magnified portion of the image within the first window in

accordance with the indicator position at the center of the first window and the magnified pixel size (See column 1, lines 55-65). Yanker discloses storing the magnified portion of the image within display memory 1 (See column 55-60) and displaying the magnified image as retrieved from the memory. Although Yanker discloses panning and scrolling of the magnified image in certain embodiment, Yanker does not even mention, “continuously shifting”. Yanker displays the magnified image without continuously shifting picture in the display area. Thus, Yanker is seen to teach magnifying an un-magnified image without continuously shifting picture”.

Allard discloses a mobile, hand-held personal communicator and magnifying a graphics image displayed on the mobile device (See Allard the Abstract). Allard explicitly teach the claim limitation of “displaying an image in a display area of a portable device” and “zooming image without continuously shifting picture in said display area of portable device” (Allard Figs. 1 and 6; column 5-7 wherein panning is a different function from zooming and zooming of the graphics image is accomplished without continuously panning or shifting picture as evidenced in column 7, lines 4-16). Allard also discloses other claim limitations set forth in the claim 1 or 23 (Allard Figs. 1 and 6; column 5-6).

It would have been obvious to one of the ordinary skill in the art at the time of the invention was made to have combined Yanker’s zoom function with Allard’s zoom function, so that the zoom function of Yanker is applied to a mobile communicator. This is because both Yanker and Allard disclose the zoom function for the graphics image displayed on a display device (See column 5-6 of Allard and column 5-6 of Yanker). One of the ordinary skill in the art would have been motivated to apply the zoom function to a variety of devices including the mobile communicator (column 5-6 of Allard).

Re Claims 2 and 24-26:

Yanker further discloses the cursor coordinate being acquired by shifting a cursor displayed in the display screen 10 to a desired coordinate or the center coordinate of the displayed image and therefore the position of the cursor being the center coordinate of the displayed image.

Claim 3:

Yanker further discloses the index being a cursor.

Re Claims 4 and 27:

Yanker further discloses the zooming ratio being acquired by choosing one from a plurality of default zooming ratios (e.g., a plurality of selectable zoom levels; see column 3, lines 5-12).

Re Claims 5, 28 and 35:

Yanker further discloses the zooming ratio being acquired by manual input (e.g., an operator changes the magnification level via the keyboard 6 and the CPU 2 recalculates the logical pel size and the zoom window coordinates; see column 6, lines 56-65).

Re Claim 6:

Yanker further discloses the zoomed image being renewed directly in said display area 10 according to said cursor position/the zoom window coordinates and the zooming level (e.g., column 6).

Claim 7:

Yanker further discloses the center position of the display screen 10 is further acquired when acquiring a position base of the cursor as the operator reposition the cursor because the position of the user positioned cursor is determined within the image in which the cursor position is referenced to the coordinates of the WP image, and the current cursor 16 screen coordinate position is recorded by the CPU 2 and the current zoom level is determined (e.g., the coordinates of the zoom window are a function of the cursor position, in that the window is centered on the cursor, the zoom level and the size of the zoom window; column 5-6).

Re Claims 8 and 36:

Yanker further discloses the zoomed image is renewed in central position of said display area 10 according to said position base of the cursor, said zoom level and coordinate of the central position of the image (column 5-6).

Re Claims 9 and 37:

Yanker further discloses the display area being limited to the zoom window having four corners and the zoom image in the zoom window is renewed in one corner of the display area 10 according to the position base and the zoom level (e.g., Figs. 2-3 and column 5-6).

Re Claims 10 and 38:

Yanker further discloses that the zoom image being zoomed in according to the zooming level (column 6, lines 35-65).

Re Claims 11 and 39:

Yanker further discloses the zoomed image being zoomed out according to the zooming level (column 6, lines 35-40).

Claim 12:

Yanker further discloses the zooming ratio conforms to the display area 10 when said zoomed image being displayed directly (column 6, lines 35-40).

Claims 41, 43 and 45:

Allard further discloses the claim limitation of a mobile telephone such a cellular phone or portable phones (column 1, 5-6 of Allard).

Claim 13:

Yanker discloses a method of zooming digital images by a plurality of coordinates, comprising:

Displaying an image in a display area, wherein said image being displayed according to an image information (Figs. 2-3 and column 5-6);

Acquiring a 1st coordinate of said image information (*e.g., acquiring a 1st coordinate location of the cursor as the operator changes from 1st coordinate location to a second coordinate location; column 4, lines 22-35 and the cursor movement in the same direction causes the screen 10 to pan in order to accommodate the continuing movement of the cursor 16; column 4, lines 60-66*);

Acquiring a 2nd coordinate of said image information (*e.g., acquiring a 2nd coordinate location of the cursor as the operator changes from 1st coordinate location to a second coordinate location; column 4, lines 22-35 and the cursor movement in the same direction causes the screen 10 to pan in order to accommodate the continuing movement of the cursor 16; column 4, lines 60-66*);

Acquiring a position base relative to a zoomed image of said 1st coordinate and said 2nd coordinate (*e.g., the cursor positions are determined so that the zoomed image is centered around the cursor position*), wherein said position base being acquired according to said 1st coordinate and said 2nd coordinate (*e.g., the zoomed image is being shifted as cursor moves; column 4*);

Calculating a zooming ratio (*e.g., determining a zoom level, column 6*); and

Using said image information to renew said zoomed image in said display area according to said zooming ratio and said position base (*e.g., the operator changes the magnification level via the keyboard and the CPU 2 recalculates the logical pel size and the zoom window coordinates and the zoom image is magnified and re-centered; column 6*).

Yanker does not explicitly teach “a portable device” within the claim limitation of “displaying an image in a display area of a portable device” and/or “zooming image without continuously shifting picture in said display area of portable device.”

Yanker discloses the zooming function being implemented on an audio/visual application processor on an IBM PS/2 computer system, which can be either a desktop computer or a laptop computer and therefore, Yanker’s zoom function can be implemented in a portable device such as a laptop computer system. Moreover, Yanker discloses magnifying an unmagnified image in the first window and displaying the magnified portion of the image within the first window in accordance with the indicator position at the center of the first window and the magnified pel size (See column 1, lines 55-65). Yanker discloses storing the magnified portion of the image within display memory 1 (See column 55-60) and displaying the magnified image as retrieved from the memory. Although Yanker discloses panning and scrolling of the magnified image in

certain embodiment, Yanker does not even mention, “continuously shifting”. Yanker displays the magnified image without continuously shifting picture in the display area. Thus, Yanker is seen to teach magnifying an un-magnified image without continuously shifting picture”.

Allard discloses a mobile, hand-held personal communicator and magnifying a graphics image displayed on the mobile device (See Allard the Abstract). Allard explicitly teach the claim limitation of “displaying an image in a display area of a portable device” and “zooming image without continuously shifting picture in said display area of portable device” (Allard Figs. 1 and 6; column 5-7 wherein panning is a different function from zooming and zooming of the graphics image is accomplished without continuously panning or shifting picture as evidenced in column 7, lines 4-16). Allard also discloses other claim limitations set forth in the claim 1 or 23 (Allard Figs. 1 and 6; column 5-6).

It would have been obvious to one of the ordinary skill in the art at the time of the invention was made to have combined Yanker’s zoom function with Allard’s zoom function, so that the zoom function of Yanker is applied to a mobile communicator. This is because both Yanker and Allard disclose the zoom function for the graphics image displayed on a display device (See column 5-6 of Allard and column 5-6 of Yanker). One of the ordinary skill in the art would have been motivated to apply the zoom function to a variety of devices including the mobile communicator (column 5-6 of Allard).

Claim 14:

Yanker further discloses that the coordinate of the center position of the display area 10 is further acquired when accruing said position base of the cursor (e.g., the position of the user

positioned cursor is determined within the image in which the cursor position is referenced to the coordinates of the WP image, and the current cursor 16 screen coordinate position is recorded by the CPU 2 and the current zoom level is determined. The coordinates of the zoom window are a function of the cursor position, in that the window is centered on the cursor, the zoom level and the size of the zoom window; column 5-6).

Re Claims 15 and 29-30:

Yanker further discloses a relative coordinate is acquired by shifting the cursor displayed in said display area respectively to said 1st coordinate and said 2nd coordinate and therefore position of the cursor is said relative coordinate (e.g., if the cursor 16 intersects an edge of the viewpoint 12, the viewport 12 is shifted to another position upon the display 10 and as the cursor 16 is panned across the enlarged image the cursor 14 of the viewport 12 moves relative to the image area approximately in unison; column 4).

Re Claims 16-18 and 31-34:

Yanker further discloses that the zooming ratio being acquired by a ratio of the display dimension relative to the distance between the 1st coordinate and the 2nd coordinate (e.g., column 6).

Re Claim 19:

Yanker further discloses the display area being limited to the zoom window having four corners and the zoom image in the zoom window is renewed in one corner of the display area 10 according to the position base and the zoom level (e.g., Figs. 2-3 and column 5-6).

Re Claim 20:

Yanker further discloses that the zoom image being zoomed in according to the zooming level (column 6, lines 35-65).

Re Claim 21:

Yanker further discloses the zoomed image being zoomed out according to the zooming level (column 6, lines 35-40).

Re Claim 22:

Yanker further discloses the zooming ratio conforms to the display area 10 when said zoomed image being displayed directly (column 6, lines 35-40).

Claims 40, 42, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yanker U.S. Patent No. 5,187,776 (hereinafter Yanker) in view of Allard et al. U.S. Patent No. 5,615,384 (hereinafter Allard) and Kondo et al. U.S. Patent No. 5,406,334 (hereinafter Kondo).

Re Claims 40, 42 and 44:

Yanker and Allard do not explicitly teach “a digital camera.”

Kondo discloses the claim limitation of “a digital camera (Kondo column 4).

Yanker discloses the zooming function being implemented on an audio/visual application processor on an IBM PS/2 computer system, which can be either a desktop computer or a laptop computer. Allard discloses a mobile, hand-held personal communicator and magnifying a graphics image displayed on the mobile device (Allard Figs. 1 and 6; column 5-6).

It would have been obvious to one of the ordinary skill in the art at the time of the invention was made to have combined Kondo’s zoom function, as applied to the digital camera, with Allard and Yanker’s zoom function, so that the zoom function of Yanker and Allard can be

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applied to a digital camera. This is because Yanker, Kondo and Allard disclose the zoom function for the graphics image displayed on a display device (See column 5-6 of Allard and column 5-6 of Yanker; column 4 of Kondo). One of the ordinary skill in the art would have been motivated to apply the zoom function to a variety of devices including the digital camera and the digital communicator (column 4 of Kondo and column 5-6 of Allard).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jin-Cheng Wang whose telephone number is (571) 272-7665.

The examiner can normally be reached on 8:00 - 6:30 (Mon-Thu).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Razavi can be reached on (571) 272-7664. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jcw

Jeffrey G. Brin
JG BRIN
PATENT EXAMINER